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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,462	01/28/2004	Masahiko Nagai	JP920020225US1	3166

56687 7590 03/04/2010

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EXAMINER	
SITTA, GRANT	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
03/04/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,462	NAGAI, MASAHIKO	
	Examiner	Art Unit	
	GRANT D. SITTA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2009*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. Since the specification does give only an exemplary, non-limiting definition of the claimed medium, the broadest reasonable interpretation of the medium recited in claims 14 and 15 would encompass non-statutory subject matter, thereby rendering the claims as a whole non-statutory for failing to fall under one of the four statutory categories of invention. Please see the attached link http://www.uspto.gov/patents/law/notices/101_crm_20100127.pdf.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-6, 8-15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti et al (6,622,012) hereinafter, Bilotti, in view of Cawthorne et al (5,633,626) hereinafter, Cawthorne.

5. In regards to claim 1,Bilotti discloses the limitations of apparatus comprising:

first and second members movable one relative to the other (fig. 1 (12, 14 and 16));

an element mounted in one of said members which initiates an action in the apparatus (fig. 1 (18));

a detector mounted in the other of said members which responds to the proximity of and detects an intensity of interaction with said element (fig. 1 (20)); and

a processor (fig. 1 (22)).

Bilotti differs from the claimed invention in that Bilotti does not disclose an inhibitor mounted in one of said members and which selectively inhibits the intensity of interaction between said element and said detector to prevent said detector from responding to the proximity of the element

a processor configured to determine a detection state of the detector and drive the inhibitor to selectively inhibit the intensity of interaction of the detector and the

element based on an output of the detector and the determined detection state of the detector.

However, Cawthorne teaches an inhibitor (fig. 30a, 30b, and 30c) mounted in one of a members (fig. 3 (12)) and which selectively inhibits the intensity of interaction between said element and said detector (fig. 3 (16c)) to prevent said detector from responding to the proximity of the element (col. 5, lines 50-64) "The embodiment of FIG. 3 uses flux cancellation and diversion as in the other embodiments. However, coils 30a, 30b and 30c are preferably larger magnetic coils wound on respective permeable cores 30a, 30b and 30c. These cores couple lines of flux to the reed switches 16a, 16b, and 16c, in the (open) secure state wherein the door is closed. The door switch operation will not be affected. When coils 30a, 30b and 30c are energized as a group or individually, the respective circuit or circuits associated with these coils will be tested by virtue of the reduction of the magnetic lines of flux induced into the switch unit 10. This occurs because the self-test coils 30a, 30b and 30c are wired so as to induce opposing lines of flux into the respective permeable cores 30a, 30b and 30c, thereby canceling and deflecting lines of flux generated by the permanent magnets 22a, 22b and 22c. This has the effect of stimulating the sensing and alarm unit (not shown) in the same manner as opening the door."

a processor (col. 1, lines 40 and col. 2, lines 1-6 centrally located control system) configured to determine a detection state of the detector and drive the inhibitor to selectively inhibit the intensity of interaction of the detector and the element (col. 5, lines

37-67) based on an output of the detector and the determined detection state of the detector (col. 5, lines 60-67).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus of Bilotti to include the use of an inhibitor as taught by Cawthorne in order to improve a testing and evaluation circuit which allows a test of a proximity switch and to monitor moveable members (col.2, lines 20-65).

6. In regards to claim 8, Bilotti discloses apparatus comprising:

a portable computer system body (col. 3, lines 18-30);

a portable computer system (col. 3, lines 18-30) lid (fig. 1 (14)) ;

a coupling joining (fig. 1 (16)) said body and said lid together for movement thereof one relative to an other between open and closed positions (col. 3, lines 18-67); and

a proximity detection subsystem which determines whether said body and said lid are in the closed position (fig. 1 (18, 20 and 22)), said subsystem comprising:

an element mounted (fig. 1 (20)) in one of said body and said lid which initiates an action in the apparatus (col. 4, lines 1-37);

a detector mounted in the other of said body and said lid (fig. 1 (18)) which responds to the proximity of and detects the intensity of interaction with said element (col. 4, lines 1-37, "Hall effect device");

Bilotti differs from the claimed invention in that Bilotti does not disclose a system and method for an inhibitor (fig. 4 (9)) mounted in said one of said body and said lid and which selectively inhibits the intensity of interaction between said element and to prevent said detector from responding to the proximity of the elements.

a processor configured to detemline a detection state of the detector and drive the inhibitor to selectively inhibit the intensity of interaction of the detector and the element based on an output of the detector and the determined detection state of the detector.

However, Cawthorne teaches an inhibitor (fig. 30a, 30b, and 30c) mounted in said one of said body and said lid which selectively inhibits the intensity of interaction between said element and said detector in response to the element being moved into the proximity of the detector (col. 5, lines 50-64);

a processor (col. 1, lines 40 and col. 2, lines 1-6 centrally located control system) configured to determine a detection state of the detector and drive the inhibitor to selectively inhibit the intensity of interaction of the detector and the element based on an output of the detector and the determined detection state of the detector (col. 5, lines 60-67)

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus of Bilotti to include the use of an inhibitor mounted in said one of said body and said lid which selectively inhibits the intensity of interaction between said element and said detector in response to the element being moved into the proximity of the detector as taught by Cawthorne in order to improve a testing and

evaluation circuit which allows a test of a proximity switch and to monitor moveable members (col.2, lines 20-65).

7. In regards to claims 10 and 14, Bilotti discloses the limitations of a method comprising:

detecting reception of a signal interaction of two members coupled for movement one relative to the (fig. 1 (12 , 14, and 16)) other normally indicative of initiation of a system operation (col. 3, lines 18-30 and abstract);

detecting a detection state of at least one of the two members (col. 3, lines 32-64);

detecting a physical proximity of the two members and determining the appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67).

Bilotti differs from the claimed invention in that Bilotti does not disclose selectively inhibiting reception of the signal interaction and prevent a response to the detected reception as a function of the determining the detection state;

detecting a physical proximity of the two members and determining the appropriateness of initiating the system operation from close proximity of the members *as a function of the selectively inhibiting the reception of the signal interaction and the determining the detection state*

However, Cawthorne teaches a system and method for selectively inhibiting reception (fig. 30a, 30b, and 30c) of the signal interaction in response to the detected reception (col. 5, lines 50-64).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus of Bilotti to include the use of selectively inhibiting reception of the signal interaction in response to the detected reception as taught by Cawthorne in order to improve a testing and evaluation circuit which allows a test of a proximity switch and to monitor moveable members (col.2, lines 20-65).

Therefore, Bilotti as modified by Cawthorne teaches detecting a physical proximity of the two members and determining the appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67 Bilotti) as a function of the selectively inhibiting the reception of the signal interaction and the determining the detection state (col. 5, lines 50-64 Cawthorne).

8. In regards to claim 11 and 15, Bilotti discloses the limitations of a method comprising:

monitoring an output of a detector mounted in one of two members (fig. 1 (12 , 14, and 16)) coupled for movement one relative to the other based on signal interaction of an element (col. 3, lines 18-30 and abstract) in the other member with the detector ((fig. 1 18, and 20));

detecting an output normally indicative of initiation of a system operation (fig. 1 (22) and col. 3, lines 18-67);

determining a detection state of the detector (col. 3, lines 32-64);

detecting a physical proximity of the members and determining the appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67).

Bilotti differs from the claimed invention in that Bilotti does not disclose selectively inhibiting the signal interaction of the element with the detector and preventing a response by the detector to the detecting the signal interaction.

However,Cawthorne teaches a system and method selectively inhibiting (fig. 30a, 30b, and 30c) the signal interaction of the element with the detector and preventing a response by the detector to the detecting the signal interaction. (col. 5, lines 50-64).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the apparatus of Bilotti to include the use of selectively inhibiting reception of the signal interaction in response to the detected reception as taught by Cawthorne in order to improve a testing and evaluation circuit which allows a test of a proximity switch and to monitor moveable members (col.2, lines 20-65).

Therefore, Bilotti as modified by Cawthorne teaches detecting a physical proximity of the members and determining an appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67 Bilotti) as a function of the selectively inhibiting the reception of the signal interaction and the determining the detection state (col. 5, lines 50-64 Cawthorne).

9. In regards to claim 2, Billotti and modified by Cawthorne teaches wherein said element is free of any necessity of application of an external source of power (fig. 1 (18)) col. 3, lines 40 "magnet" Billotti).

10. In regards to claim 3, Billotti as modfieid by Cawthorne teaches wherein said detector responds to one of an electromagnetic wave, an electric field, *a magnetic field*, corpuscular radiation, and an acoustic wave (fig. 1 (20) col. 3-4, lines 63-9 Billotti).

11. In regards to claim 4, Billotti as modified by Cawthorne teaches wherein said element is a magnet (fig. 1 (18) and col. 3, line 40 Billotti), said detector is a Hall effect switch (col. 4, lines 23-37 Billotti) responsive to imposition of a magnetic field (col. 4, lines 23-37 Billotti), and said inhibitor ((fig. 30a, 30b, and 30c) Cawthorne) is a coil generating a magnetic field opposing the field of said magnet (((fig. 30a, 30b, and 30c) Cawthorne) coils).

12. In regards to claim 6, Billotti as modified by Cawthorne teaches wherein one of said members is the lid of a portable computer system having a display therein and the other of said members is the body of a portable computer system having a keyboard therein (col. 3, lines 29-30 Billotti).

13. In regards to claim 9, Billotti as modified by Cawthorne teaches wherein said element is a magnet (fig. 1 (18) and col. 3, line 40 Billotti), said detector is a Hall effect switch (col. 4, lines 23-37 Billotto) responsive to imposition of a magnetic field (col. 4, lines 23-37 (Billotto), and said inhibitor (((fig. 30a, 30b, and 30c) Cawthorne)) is a coil generating a magnetic field opposing the field of said magnet further comprising a microprocessor (fig. 1 (22) of Billotti) operatively connected to control excitation of said coil (((fig. 30a, 30b, and 30c) Cawthorne) coils).

14. In regards to claim 12, Billotti as modified by Cawthorne teaches wherein the selective inhibition (((fig. 30a, 30b, and 30c) Cawthorne)) of response occurs in response to detection that the members are withdrawn one from the other (col. 4, lines 10-37 of Billotti).

15. In regards to claim 13, Billotti as modified by Cawthorne teaches wherein selective inhibition (col. 2, lines 48-65 Cawthorne) of response is discontinued in response to detection that the members are in close proximity one to the other (col. 4, lines 10-37 (Billotti)).

16. In regards to claim 19, Billotti as modified by Cawthorne further including preventing detection of the output (col. 2, lines 48-65 Cawthorne).

17. In regards to claim 20, Billotti as modified by Cawthorne teaches wherein the inhibitor is activated by a power supply external to the inhibitor (fig. 3 (24) Cawthorne).

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Cawthorne, in view of Deczky (4,294,682) hereinafter, Deczky.

19. In regards to claim 5, Billotti as modified by Cawthorne does not disclose wherein said element is a light source, said detector is a photoelectric device, and said inhibitor is a light shield.

However, Deczky teaches wherein said element is a light source, said detector is a photoelectric device, and said inhibitor is a light shield (col. 4, lines 12-25)

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify said element of Billotti and Cawthorne to include the use of wherein said element is a light source, said detector is a photoelectric device, and said inhibitor is a light shield as taught by Deczky in order to provide use of preferred materials since optical material are not susceptible to malfunction magnetic clips and other problems as stated in Applicant's disclosure.

20. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Cawthorne, in view of Bartingale et. al (US 2003/0048102) hereinafter, Bartingale.

21. In regards to claim 16, Bilotti as modified by Finch disclose the limitations of claim 1 wherein the element is a magnet (fig. 1 (18) of Bilotti).

Bilotti and Cawthorne differ from the claimed invention in that Bilotti and Cawthorne do not disclose further including a noise magnetic field filter that filters external magnetic noise, thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other.

However, Bartingale teaches including a noise magnetic field filter that filters external magnetic noise, thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other ([0040 and 0043] of Bartingale).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Cawthorne to include the use of a noise magnetic field filter that filters external magnetic noise, thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other as taught by Bartingale in order to remove an noise that may cause interference as stated in ([0400] of Bartingale).

22. In regards to claim 18, Bilotti as modified by Cawthorne disclose the limitations of claim 10.

Bilotti and Cawthorne differ from the claimed invention in that Bilotti and Cawthorne do not disclose further including filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected.

However, Bartingale teaches further including filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected ([0040 and 0043] of Bartingale).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Cawthorne to include the use of filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected as taught by Bartingale in order to remove a noise that may cause interference as stated in ([0400] of Bartingale).

23. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Cawthorne in view of Sunter et. al (US 5,323,011) hereinafter, Sunter.

24. In regards to claim 17, Bilotti as modified by Cawthorne disclose the limitations of claim 8.

Bilotti and Cawthorne differ from the claimed invention in that Bilotti and Finch do not disclose wherein the detector responds to corpuscular radiation.

However, Suntar teaches a system and method for wherein the detector responds to corpuscular radiation (col. 1, lines 35-46 of Suntar).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Cawthorne to include the use of wherein the detector responds to corpuscular radiation as taught by Suntar in order to provide another detection means as stated in (col. 1, lines 35-46 of Suntar).

25. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Cawthorne, in view of Lemke et. al (US 4,323,890) hereinafter, Lemke.

26. In regards to claim 7, Billotto as modified by Cawthorne fails to expressly teaches wherein said inhibitor is responsive to a coded driving signal.

However, Lemke teaches a coded driving signal (col. 1, lines 28-30, col. 1, lines 58-64 Lemke).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Cawthorne to include the use of wherein the detector responds to corpuscular radiation as taught by Lemke to ensure dependable monitoring of the switching state of switching elements. (col. 1, lines 28-30).

Therefore, Bilotti and Cawthorne as modified by Lemke teaches wherein said inhibitor (fig. 3 (30a, 30b, and 30c Cawthorne)) is responsive to a coded driving signal (col. 1, lines 45-67 Lemke) and further wherein said inhibitor (fig. 3 (30a, 30b, and 30c

Cawthorne)), said element and said detector cooperate in determining the physical proximity of said members one relative to the other by detection of the coded driving signal (col. 1, lines 28-30, col. 1, lines 58-64 Lemke).

Response to Arguments

27. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT D. SITTA whose telephone number is (571)270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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